



HOW TO...

Photograph small objects

Landscapes and large buildings are impressive subjects for photographs, but what about the little things in life? Mike Bedford shows you how to capture everyday objects that are small but perfectly formed

The world is full of things that go largely unnoticed because they're so small. You may not realise it if you tend to take pictures of landscapes, people and buildings, but tiny objects can make fascinating and often stunning photographic subjects. Here we show you how to photograph small subjects with your digital camera.

FLOWER POWER

Most digital cameras have a macro mode that allows you to get close to your subject. This is usually marked with a flower icon. This feature differs widely from one camera to another, but typically it lets you focus down to about 100mm. This allows you to shoot objects as small as a few centimetres across. But it is possible to photograph even smaller objects if you are prepared to buy additional equipment.

If you have a digital single lens reflex (SLR) camera with a removable lens, you have several options. The best method, but also the most expensive, is to buy a special macro lens to use in place of your normal lens. The second method is to use a set of extension tubes that fit between the camera body and the lens. The more you extend the lens, the closer you can get. Extension tubes normally come in sets of three, of differing lengths, and you can use them singly or in combination.

The third method, which also applies to cameras other than SLRs, is to use one or more close-up lenses. These fit in front of the existing lens like a filter. Because there's so much variety among compact digital cameras, you should find out what size filter your camera takes before ordering. Not all digital cameras have a filter thread on the front of the lens, but if your camera doesn't there will

probably be some way of fixing a close-up lens. Methods differ so you should do your homework first. Close-up lenses come in various strengths and, like extension tubes, they can be used individually or in combination, although they're not necessarily bought in sets.

THROUGH THE LOOKING GLASS

A digital SLR is ideal for macro photography, because what you see through the viewfinder is exactly how the photograph will turn out. Compact digitals are different. Because the optical viewfinder is offset from the main lens, it sees a slightly different view of the world. When you are shooting a distant subject the difference is negligible, but if you frame a macro shot using the optical viewfinder you'll find that the end result is way off the mark. Because of this, you should always use the liquid crystal display (LCD) screen as the viewfinder for macro work.

Inevitably, depth of field will be limited when you are working close up. In one sense this is a good thing as it means that a potentially distracting background will end up out of focus. However, you could find that parts of your subject also end up out of focus. You might like this effect – many photographers do – but if not you can increase the depth of field by reducing the aperture.

Reducing the aperture means that you need a long exposure – in which case, you should use a tripod – or lots of light. Unfortunately, lighting can be a real problem with macro photography. Because a camera's built-in flash is usually some distance from the lens, the light it emits might be unable to illuminate a scene when you're close up. Even if the light doesn't miss the subject, it will invariably create very harsh shadows. It is possible

to buy a special 'ring' flash that surrounds your lens. However, our advice is to forget about flash. Instead, do your macro photography outside on a bright overcast day. Be aware, though, that you and your camera may block the light from your subject, so you might have to try using sheets of white paper to reflect the daylight on to the subject and fill in the shadows.

By adding various accessories to your digital camera you can photograph things that are quite small, but you don't have to stop there. If you have a microscope, you can enter the exciting world of micro photography and take pictures of things that are too small to see with the naked eye. However, to do this you will need an adaptor to attach your camera to a microscope and eliminate the ambient light. Since they don't contain any optical parts, they don't cost a fortune. SRB Film Service (www.srbfilm.co.uk) has adaptors for both digital SLRs and digital compacts. This company is also a good source of many of the other accessories mentioned in this article.

FLAT HUNTING

If you want to photograph something small that's completely flat, such as a postage stamp for example, then the obvious solution is to scan it using a flatbed scanner rather than photographing it. However, your scanner can also help you take photographs of small objects that aren't completely flat. Most scanners have a much better depth of field than you might expect and they are suitable for taking macro photographs of leaves, certain types of wild flower, coins and more besides. Furthermore, the lighting is no longer a problem. As long as you are careful not to scratch the glass surface, it couldn't be simpler. 



Using certain cameras, a subject that is around 100mm across such as this will be the limit of what is available using the macro mode



To get closer you need to use an accessory such as a close-up lens. A +4 close-up lens meant this portion of a fossil, around 40mm across, could be captured



For the really small subjects, you'll need to use your digital camera with a microscope. This green algae is a little more than a tenth of a millimetre long